

REMARKS/ARGUMENT

Applicant responds herein to the Office Action dated September 24, 2002.

Preliminarily, claim 4 has been amended responsive to the rejection thereof under 35 U.S.C. §112, second paragraph, as set forth in paragraph 2 of the Office Action. Reconsideration and withdrawal of this rejection is requested.

Substantively, claims 5, 6, 23, 25-27 and 29 are stated to be obvious over Ogiyu (JP 62-40413) in view of Ueda (JP 59-129050). Claims 2-4 and 24 are stated to be obvious over the aforementioned references, further in view of the "Examiner's Official Notice." Claims 7-9, 13 and 15 are stated to be obvious over the aforementioned references, further in view of Akiba, et al. (5,894,369). Claim 14 is stated to be obvious over the aforementioned references, further in view of the Examiner's Official Notice. Claim 21 is stated to be obvious over Ogiyu (JP 62-40413), in view of Ueda (JP 59-129050), further in view of Tetsumaru, et al. (JP 6-209898). Finally, claim 28 is stated to be obvious over Ogiyu (JP 62-40413) in view of Ueda (JP 59-129050), further in view of Pollack (5,992,728). Reconsideration is requested in view of the amendments to the claims herein and the following remarks.

Independent claim 23 recites an endoscope capable of being autoclaved and which has an outer casing of the endoscope made at least partially of a polymeric material. In the interior of the endoscope, a component is housed and that component is constituted as a hermetically sealed unit composed of a plurality of airtight partition members which are hermetically joined to one another. As presently amended, it is further recited that these airtight partition members are at least partially overlapped. It is still further recited that end parts of the plurality of airtight partition members are hermetically joined to one another, such as to overlap one another, thereby to provide an airtight space.

Further in accordance with claim 23, the outer casing is formed to provide the first sealing level that hinders liquid from invading the interior thereof, while permitting high-pressure, high-temperature steam given off during autoclaving to invade the interior of the endoscope.

Further in accordance with claim 23, the component that is provided or constituted as a hermetically sealed unit is formed to provide a second sealing level higher than the first sealing level of the outer casing, to hinder the high-pressure, high-temperature steam penetrating through the outer casing during autoclaving from invading the interior of the component.

Independent claim 29 contains similar elements/features.

Turning to the cited references, the Office Action acknowledges that the primary reference Ogiyu fails to show that at least one of the components is a hermetically sealed unit formed at the second sealing level higher than said first sealing level.

The applicant further refers the Examiner's kind attention to the English language abstract of this reference, which describes as the purpose of the construction thereof, the objective of preventing negative pressure applied to bonded parts from lowering the bonding strength. Autoclaving is not at all mentioned. The image pickup unit 13, which includes a solid-state image pickup element 11, are attached at the tip 9 of the body, whereby the unit is always exposed to the interior of the endoscope without being protected against the detrimental effects of autoclaving.

Furthermore, the use in the abstract of such terms as "watertight" and/or "airtight" standing by themselves, does not convey any teaching concerning the present invention, insofar as it deals with the subject of autoclaving. A construction may be "airtight" at ambient pressures and not be airtight at all under the conditions encountered during autoclaving. As a whole, this document teaches either not to subject this endoscope to autoclaving, or to ignore the effects of autoclaving which, over time, may reduce the life of the interior parts.

Recognizing the deficiencies of the primary reference, the Office Action turns to Ueda and contends that it teaches to provide a hermetic (airtight) housing for the image pickup unit in an analogous watertight endoscope. It is asserted that the housing in this reference is composed of a plurality of airtight partition members 15, 22 including at least one of optical members 18 and electronic parts 24 as airtight partition members.

In the first instance, the applicant cannot discern in this reference, the plurality of airtight partition members that are recited in claim 23. The reference numerals 15 and 22 of this reference appear to be external parts and do not appear to be capable of providing the protection against autoclaving. Indeed, the term "airtight" in and of itself, does not amount to a teaching of providing a sealing level that is capable of withstanding the high temperatures and high pressures that are encountered in autoclaving. Even further, as presently amended, the claims provide that these "plurality of airtight partition members" partially overlap one another, and end parts of the plurality of airtight partition members are hermetically joined to one another in a manner that they overlap one another, thereby to provide an airtight space.

As is explained in the instant specification, for example, at pages 24 -25, it is not a simple matter to protect against the high temperature and high pressures of autoclaving. The involved parts

do not stay at a standstill. They expand and contract in response to the high temperatures being encountered. It is simply difficult, if not impossible, to maintain an airtight seal without having a plurality of partition members so joined with one another, as to provide the desired effect, which produces a second sealing level that is effective against the steam of the autoclaving process. Respectfully, no such teaching is provided in this secondary Ueda reference. The alleged partition members 15, 22 do not correspond to the claimed plurality of partition members of claim 23.

The mere fact that sealing agents or sealing adhesives are used in Ueda as a means to provide the airtight casing to the endoscope body, or a waterproof structure (if it is possible to do so), still fails as a teaching of the instant invention because, as noted above, "waterproof" and "airtight" are not defined in sufficient detail in this reference as to be able to distinguish or discriminate between them. In other words, Ueda does not refer to the airtight casing in the endoscope body which is formed at a sealing level higher than the sealing level of the endoscope body.

As previously noted, all of the aforementioned comments and points of distinction similarly apply to independent claim 29.

Since all of the remaining claims in the application are dependent claims which directly or indirectly incorporate the limitations of one or the other of the independent claims discussed above, and since each of these claims imposes further limitations, it is respectfully submitted that all of the claims in the application are clearly distinguishable over the prior art.

Accordingly, the Examiner is respectfully requested to reconsider the application, allow the claims as amended and pass this case to issue.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Asst. Commissioner for Patents, Washington, D.C. 20231, on December 6, 2002

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December 6, 2002

Date of Signature

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Respectfully submitted,

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